



## Claims

1-4. "canceled".

5. "new". A transistor comprising elements of a bipolar static induction transistor on both sides of a lightly doped silicon monocrystal substrate having a donor concentration of about 10.<sup>14</sup> cm.<sup>-3</sup>:

an epitaxial layer of the same type of conductivity having a impurity concentration of about 10.<sup>17</sup> cm.<sup>-3</sup> is disposed on both sides said substrate;  
a gate, a source and a normally-off channel are disposed in said epitaxial layer on both sides said substrate.

6. "new". The transistor according to claim 5 wherein a layer of a doped n+-type polysilicon is disposed on the silicon monocrystal surface on both sides of said substrate.

7. "new". A transistor comprising elements of a bipolar static induction transistor on both sides of a lightly doped silicon monocrystal substrate having a donor concentration of about 10.<sup>14</sup> cm.<sup>-3</sup>:

an epitaxial layer of the same type of conductivity having a impurity concentration of about 10.<sup>17</sup> cm.<sup>-3</sup> is disposed on both sides said substrate;  
a gate, sources and channels are disposed in said epitaxial layer on both sides said substrate;

one channel of a multielement structure is thicker than the other normally-off channels on both sides of said substrate.

8. "new". The transistor according to claim 7 wherein a layer of a doped n+-type polysilicon is disposed on the silicon monocrystal surface on both sides of said substrate.

9. "new". A transistor comprising elements of a bipolar static induction transistor on both sides of a lightly doped silicon monocrystal substrate having a donor concentration of about 10.<sup>14</sup> cm.<sup>-3</sup>:

an epitaxial layer of the same type of conductivity having a impurity concentration of about 10.<sup>17</sup> cm.<sup>-3</sup> is disposed on both sides said substrate;  
a gate, sources and channels are disposed in said epitaxial layer on both sides said substrate;

one channel of a multielement structure is thicker than the other normally-off channels on both sides of said substrate;

said channel is connected to a separate electrode on both sides of said substrate.

10. "new". The transistor according to claim 9 wherein a layer of a doped n+-type polysilicon is disposed on the silicon monocrystal surface on both sides of said substrate.

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*10.20.2004*

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5."new". A transistor comprising elements of a bipolar static induction transistor on both sides of a lightly doped silicon monocrystal substrate having a donor concentration of about 10.sup.14 cm.sup.-3:

an epitaxial layer of the same type of conductivity having a impurity concentration of about 10.sup.17 cm.sup.-3 is disposed on both sides said substrate;

a gate, a source and a normally-off channel are disposed in said epitaxial layer on both sides said substrate.

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a gate, sources and channels are disposed in said epitaxial layer on both sides said substrate;

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a gate, sources and channels are disposed in said epitaxial layer on both sides said substrate;

one channel of a multielement structure is thicker than the other normally-off channels on both sides of said substrate;

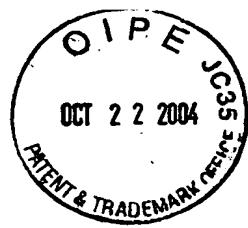
said channel is connected to a separate electrode on both sides of said substrate.

10."new. The transistor according to claim 9 wherein a layer of a doped n+-type polysilicon is disposed on the silicon monocrystal surface on both sides of said substrate.

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